

Oasis Academy Don Valley – Curriculum Map 2019/2020- Science

Year Group 7	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Module Title	Cells and interdependence	Forces	Reproduction	Particles	Energy	Reactions
Key Questions	What are we all made of? How can we see cells? How will we be safe in the lab? What skills do Scientists need?	What are we all made of? Where do we come from? Are we alone?	How did we get here? Why do we look like our parents? What will we look like in the future?	What are we made of on a chemical basis? What are objects made from? What makes an atom?	What are the types of energy? Is energy running out? Where can we get energy from? How much does energy cost?	How do chemicals interact? Why is the World not on fire? Are chemicals safe?
Key Knowledge covered	Biology unit focusing on organisms. Pupils will gain an understanding of ecosystems and factors that can effect populations. Pupils will also learn about cells and their structure and function.	Physics unit focusing on forces and the universe. Pupils will learn the basics of the how forces interact with each other and the structure of the known universe.	Biology unit looking at human (mammalian) reproduction and genetic variation. Includes environmental and inherited changes and adaptations.	Chemistry unit focusing on the basics of atomic structure and the particle model. Pupils will get a feel for key threshold concepts that will carry them through GCSE.	A physics unit looking at energy and the need for alternative resources of energy. Pupils will learn about and apply knowledge on calculations related to efficiency.	A Chemistry unit focusing on reactions and understanding how reactions occur. Pupils will also look at separation techniques used in Science.
Key Words and definitions	See knowledge organiser for the specific unit.	See knowledge organiser for the specific unit.	See knowledge organiser for the specific unit.	See knowledge organiser for the specific unit.	See knowledge organiser for the specific unit.	See knowledge organiser for the specific unit.
Formative assessment	Assessment of key words each lesson. Every two weeks a written assessment on the series of lessons taught. These will be interleaved with content from previous units and lessons.	Assessment of key words each lesson. Every two weeks a written assessment on the series of lessons taught. These will be interleaved with content from previous units and lessons.	Assessment of key words each lesson. Every two weeks a written assessment on the series of lessons taught. These will be interleaved with content from previous units and lessons.	Assessment of key words each lesson. Every two weeks a written assessment on the series of lessons taught. These will be interleaved with content from previous units and lessons.	Assessment of key words each lesson. Every two weeks a written assessment on the series of lessons taught. These will be interleaved with content from previous units and lessons.	Assessment of key words each lesson. Every two weeks a written assessment on the series of lessons taught. These will be interleaved with content from previous units and lessons.
Summative assessment		60 minute written assessment on all the learning for the year so far. Questions are directly related to the success criteria.		60 minute written assessment on all the learning for the year so far. Questions are directly related to the success criteria.		60 minute written assessment on all the learning for the year so far. Questions are directly related to the success criteria.
First-hand experience	Using a microscope to view their own cells. Visit from a Microbiologist.	Star dome to support the learning on space.	Visit a research lab looking at genetic diseases – link to designer babies.	British Science Week (Big bang fair).	Visit to the local environment to look at resources and green space.	Visit to a crime lab in the police station to look at separation techniques and how they can be used to help stop conflict.